

REMARKS

Reconsideration and allowance is kindly requested in view of the remarks and amendments set forth in this response.

Claims 1-34 are pending in the present application. Claims 1, 20, 23, and 34 are independent claims. Claims 1 and 23 have been amended, and independent claim 34 has been added.

Embodiment of the Invention

The Applicant respectfully provides the Examiner with a summary of an embodiment of the present invention. Referring to Fig. 1 and page 3, line 28 through page 4, line 31 of the specification, a data packet 10 and control information 14 are channel coded prior to transmission. Control information 14 includes information on how to decode an associated channel coded data packet 10 along with any information pertinent to the transfer and translation of the packets upon arrival. The data packet 10 is divided into data sub-packets 12-n (1, 2, 3 ... n). Control information is transmitted on the control channel, while data is transmitted on a parallel data channel. Each data sub-packet 12-n is transmitted over separate time slots n of the data channel. Control information 14 is transmitted as control information 16-n (1, 2, 3 ... n) over a control channel. By providing separate and parallel channels for data and control information, it is possible to improve the reliability of the control information transmission, which in turn improves the transmission rate. One method disclosed to improve the transmission is to transmit the control information using a stronger or more reliable frequency than the data packet channel. Another method is to redundantly transmit the control information during the time slot for each data packet. This method allows for the complete transmission of the control

information prior to the complete transmission of the associated data packet, and allows for the data packet decoding to begin prior to the end of the data packet transmission. Since the entire communication relies on the proper transmission of the control information, the improved reliability of the control information transmission results in a reduction of communication delays and permits quicker decoding of the data packets.

Rejection Under 35 U.S.C. § 102 (e)

Claims 1 and 23 stand rejected under 35 U.S.C. § 102 (e) as being anticipated by Ueno. Applicant respectfully traverses this rejection.

Ueno teaches a method and apparatus for transferring a fixed-length data block between nodes using a time slot from a plurality of time slots provided within each consecutive transmission cycle (Fig. 8 and Fig. 11). Ueno discloses a wireless network which uses infrared rays as a wireless communication medium (Fig. 1 and col. 3, line 52 through col. 5, line 7). The wireless network may include five wireless network nodes (WN 2 through 6), with one node acting as the control node. The nodes exchange data in fixed-length data blocks (Fig. 8, slots 1...8), via an infrared signal, sequentially, (one packet at a time) on a single channel (Fig. 8 to 13, all showing data transfer on a single channel). Fig. 6A and col. 5, lines 1-5 disclose a fixed-length data block containing user data comprising data from one or more data packets. Each data packet comprises a header, user data, followed by error-correcting code (ECC). The user data packets are spliced to fit into the fixed-length data packets (Fig. 12A-E, col. 12, lines 61 – col. 13, line 22). A control slot transmitted by the control node comprises the first time slot of each cycle, followed by a set of fixed length data blocks. The fixed-length data blocks are transferred using a plurality of time slots (see Fig. 8 time slots 1-6) using the same transmission signal.

Ueno neither discloses nor suggests having “the data channel being parallel to the control channel” as recited in claims 1 or 23. The transmission model disclosed in Ueno is limited to sequential, not parallel, transmission of data packets, consisting of a control block followed by a series of fixed-length data packets (see Fig. 8 time slots 1-6), and therefore cannot disclose or suggest the claimed invention.

Therefore, Ueno does not anticipate or render claims 1 or 23, obvious to one skilled in the art. Applicants respectfully request the Examiner to withdraw this rejection.

Rejections Under 35 U.S.C. § 103 (a)

In view of the amendments and remarks made in the preceding section, claims 2-19, 21, 22, and 24 - 33 are allowable due to their dependency on claims 1 or 23 as well as on their own merits. Namely, the secondary references of Proctor, Jr. (U.S. PG Pub. 2002/0013135 A1), Lewis (U.S. Patent No. 6,601,209), Carlsson (U.S. Patent No. 6,603,978), Scholefield (U.S. Patent No. 5,742,592), Nakano (U.S. Patent No. 5,206,858), Bergenwall (U.S. PG Pub. 2002/0126710), Moulsey (U.S. PG Pub. 2004/0082357) or any well established teachings in the art do not overcome the disclosure and suggestion deficiencies of Ueno with respect to claims 1 and 23. Therefore, Ueno in view of Proctor, Jr., Lewis, Carlsson, Scholefield, Nakano, Bergenwall or Moulsey cannot render claims 1 and 23, or the claims dependent thereon, obvious to one skilled in the art.

Allowable Subject Matter

Allowable Claim 20 has been rewritten in independent form as new claim 34, incorporating all the limitations of the base claim and any intervening claims, to overcome the objections set forth in the previous office action. Therefore, claim 34 is allowable.

CONCLUSION

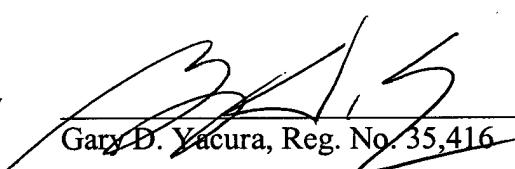
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Gary D. Yacura at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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By


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